

RECEIVED
CENTRAL FAX CENTER

Serial No. 10/759,909

NOV 08 2006

Page 2 of 8

In the Claims

1. - 18. (Cancelled)

19. (Currently Amended) ~~The transducer as defined in claim 18~~ A transducer for converting mechanical stress and vibrations into electric signals, said transducer comprising:
at least one transducer element;
at least one dielectric layer on at least one side of the transducer element;
at least one signal electrode; and
at least one ground electrode, the transducer having a transducer part and a connection part;
wherein the transducer element is comprising at least one charged cellular electret film;
wherein at least the signal electrode is arranged between the dielectric layer and transducer element; and
wherein the signal electrode is essentially inside the transducer structure in order to reduce the electromagnetic interference, wherein a ground electrode is arranged on same face than said signal electrode to circulate the said signal electrode in order to reduce electromagnetic interference.

20. (Cancelled)

21. (Currently Amended) ~~Method for forming a transducer according to claim 20~~ A method for forming a transducer for transforming mechanical stress and vibrations into electric signals, said transducer comprising:
at least one transducer element;
at least one dielectric film on at least one side of the transducer element;
at least one signal electrode, said signal electrode arranged in between the dielectric film and transducer element;
at least one ground electrode;
a transducer part;

84174771_1

Serial No. 10/759,909

Page 3 of 8

a connection part;

wherein the transducer element is comprised of at least one cellular electret film containing a permanent electric charge;

forming signal electrodes of several transducers on one or more dielectric films or on cellular electret film material side by side;

gluing the dielectric films and the cellular electret film material against each other as a laminate so that the cellular electret film is placed in a desired area, said electrodes forming one or more electrically conductive surfaces required at each transducer; and

cutting the laminate into several transducers,

wherein the cellular electret film is permanently charged before or after cutting

22. (Cancelled)

23. (Original) Method for forming a transducer according to claim 21;

wherein a suitable fastening substance is applied in between the first dielectric film and the first side of the electromechanical transducer material, consisting at least one cellular electret film, fastening the first dielectric film and first side of the transducer material together so that the signal electrodes are arranged in between; and

fastening, with suitable substance, a second dielectric sheet and the laminate obtained above, the second side of the transducer element against the dielectric sheet, together, with ground electrodes arranged in between the transducer material and dielectric sheet.

24. (Original) Method for forming a transducer according to claim 23, wherein a laminate is obtained, from which the transducers are cut out.

25. (Cancelled)

25. (Cancelled)

84174771_1

26. (Cancelled)

27. ~~The transducer according to claim 26,~~ A transducer for converting mechanical stress into electric signals, said transducer comprising:

at least two transducer elements, said elements having first and second surfaces;

at least one signal electrode layer arranged between two transducer elements, said signal electrode layer being a electrically conductive layer arranged in between the first surfaces of the two transducer film elements;

at least two ground electrode layers, said ground electrode layers being electrically conductive layers arranged against the second sides of the transducer film elements;

said electrodes extend from the transducer part as connection part for connecting the transducer to a signal processing device; and

wherein transducer elements are permanently charged cellular electret films,

wherein cellular electret films are biaxially oriented foamed film layers.

28. (Original) The transducer as defined in claim 27, wherein the cellular electret film is pressure inflated from prefoamed cellular electret film.

29. (Original) Method for forming a transducer according to claim 28, wherein a mass is attached on the other side of the said transducer.

30. - 39. (Cancelled)

40.(Currently Amended) Method for forming a transducer for transforming mechanical stress or vibrations into electric signals, said transducer comprising:

44174771_1

Serial No. 10/759,909
Page 5 of 8

at least one transducer element;

at least one dielectric film on at least one side of the transducer element;

at least one ground electrode said ground electrode partially covering said transducer element;
said ground electrode arranged in between the first side of said dielectric film and transducer element;

at least one signal electrode, said signal electrode arranged on second side of said dielectric film;

a transducer part;

a connection part;

wherein the transducer element is comprised of at least one cellular electret film containing a permanent electric charge;

forming said ground electrode of several transducers on one or more dielectric films or on cellular electret film material side by side;

arranging dielectric films and the cellular electret film material against each other as a laminate so that the cellular electret film is placed in a desired area, said electrodes forming one or more electrically conductive surfaces required at each transducer and

cutting the laminate into several transducers.

84174771_1

Serial No. 10/759,909

Page 6 of 8

41. (new) Method for forming a transducer as defined in claim 24, wherein the cellular electret film is pressure inflated from prefoamed cellular film.

84174771_1